What is New in Geriatric Oncology: The Medical Oncology Perspective

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City of Hope
Between 2010 and 2030, cancer incidence will increase by:
- 11% in patients < 65
- 67% in patients 65+

Smith et al, J Clin Oncol, 2009
Geriatric Oncology within the Last Year

- PubMed Database Search
  - Search Criteria:
    - Cancer
    - Aged ≥ 65
    - Clinical Trials
    - English
    - Published in the last year

- Total Results in 2011 → 2614 articles

- Main Focus:
  - Therapeutic Trials in Older Adults with Cancer
  - Geriatric Assessment
    - Use in the Care of Older Adults with Cancer
Carboplatin + Paclitaxel Doublet Chemotherapy vs. Monotherapy in NSCLC

N=451
- Age 70-89
- Locally Advanced or Metastatic NSCLC
  WHO performance status scores 0–2

Randomize

N=225
carboplatin + weekly paclitaxel

N=226
vinorelbine or gemcitabine monotherapy

Quoix et al, Lancet, 2011
PFS & OS Favors Doublet Chemotherapy

Quoix et al, Lancet, 2011
## Multivariate Analysis of Overall Survival

<table>
<thead>
<tr>
<th>Prognostic Factors</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doublet Chemotherapy</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Performance Status of 0-1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Adenocarcinoma (vs. Squamous and Other)</td>
<td>0.029</td>
</tr>
<tr>
<td>Never Smoked</td>
<td>0.007</td>
</tr>
<tr>
<td>ADL Independent</td>
<td>0.003</td>
</tr>
<tr>
<td>Weight Loss of 5% or Less</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Quoix et al, Lancet, 2011
Toxicity Effects in Single vs. Doublet Therapy

<table>
<thead>
<tr>
<th></th>
<th>Monotherapy</th>
<th>Doublet Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Febrile Neutropenia</td>
<td>2.7%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Asthenia</td>
<td>5.8%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Toxic Death Rate</td>
<td>1.3%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

QoL Findings:
- At 18 weeks, Global QoL Score was similar in both groups
- Role functioning and fatigue were worse in doublet chemotherapy group

Quoix et al, Lancet, 2011
Conclusion

- Doublet therapy (vs. monotherapy) yielded:
  - Better response rates, PFS, and OS
  - Increased toxicity

- Limitations:
  - Patients studied were relatively fit (80% ADL independent)

Quoix et al, Lancet, 2011
FOCUS2: Reduced-Dose Chemotherapy in Frail Elderly Patients with Colorectal Cancer

- Not a candidate for standard full-dose combination therapy
- Advanced or Metastatic Colorectal Cancer
- No previous systemic chemotherapy for metastasis
- WHO Performance Status ≥2

Randomize

80% Dose-Reduction of Standard Drug Regimens

- Group A: FU (N=115)
- Group B: OxFU (N=115)
- Group C: Cap (N=115)
- Group D: OxCap (N=114)

Seymour et al, Lancet, 2011
FOCUS2 Trial: Progression-Free Survival Favors Oxaliplatin Arm

- Capecitabine did not improve QoL when compared with FU

Seymour et al, Lancet, 2011
FOCUS2 Trial: Overall Treatment Utility

- Overall Treatment Utility (OTU):
  - Patient’s opinion (Was it worth it?)
  - Clinical efficacy (Is pt alive without progression?)
  - Toxicity (Did we avoid causing major harm?)

- Better OTU $\rightarrow$ improved PFS and OS ($p<0.0001$)

- Predictors of 12-week Overall Treatment Utility:
  - Allocation to Oxaliplatin
  - WHO Performance Status
  - EQ5D QoL Score
  - White Blood Cell Count $\leq 10$ ($x10^9$/L)
  - Overall Symptom Score

*Seymour et al, Lancet, 2011*
FOCUS2 Trial: Conclusion

- Combination therapy with oxaliplatin:
  - Improvement in PFS (p=0.07)
  - Better overall treatment utility

- Lessons from trial design:
  - Randomized controlled trials in frail and older adults is possible
  - Reduced doses upfront – allowed dose escalation
  - Comprehensive baseline assessment: predictor of treatment benefit

Seymour et al, Lancet, 2011
Low-Dose Decitabine vs. Best Supportive Care in Elderly Patients with MDS

N=233
Age ≥ 60
High-risk patients with myelodysplastic syndrome (MDS)
Ineligible for intensive chemotherapy
ECOG PS scores 0–2

Randomize

N=119
Decitabine + Best Supportive Care

N=114
Best Supportive Care

Lübbert et al, J Clin Oncol, 2011
Phase III MDS Study: Progression-Free Survival

![Graph showing progression-free survival over time with two lines representing different treatments.]

- **BSC** (Blue line) with 105 in the O column and 114 in the N column.
- **Decitabine** (Yellow line) with 113 in the O column and 119 in the N column.

Log-rank test $P = .004$

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**Lübbert et al, J Clin Oncol, 2011**
Phase III MDS Study: QoL Results

- QoL was evaluated using EORTC Quality of Life Questionnaire
- The decitabine arm was associated with significant improvements in:
  - Fatigue
  - Physical Functioning

_Lübber et al, J Clin Oncol, 2011_
Phase III MDS Study: Conclusion

- Decitabine arm was associated with:
  - 13% complete response
  - 6% partial response
  - Prolonged PFS (p=0.004)
  - Improvement in OS and AML-free survival (not significant)
  - Improvement in fatigue and physical function

Lübbert et al, J Clin Oncol, 2011
Androgen-Deprivation Therapy Impact on Physical Function & QoL in Prostate Cancer

- Prospective longitudinal study
- 3 groups:

<table>
<thead>
<tr>
<th>ADT Users (N=87)</th>
<th>PC Control (N=86)</th>
<th>Healthy Control (N=86)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonmetastatic PC: ADT</td>
<td>Nonmetastatic PC: No ADT</td>
<td>No PC</td>
</tr>
</tbody>
</table>

- Physical function and Quality of Life were assessed at:

  - Baseline
  - 3 months
  - 6 months
  - 12 months

Alibhai et al, J Clin Oncol, 2011
Impact of ADT: Conclusion

- Declines in physical function were seen within 3 months of initiating ADT
  - Endurance
  - Upper extremity strength
  - Physical Components of QoL

- Exercise interventions may help counteract these symptoms

*Alibhai et al, J Clin Oncol, 2011*
Physical Activity and Survival after Prostate Cancer Diagnosis

Health Professionals Follow-Up Study
2,705 men with nonmetastatic prostate cancer
Prospective Longitudinal Study
Follow-Up: Every 2 yrs
Assessment of Physical Activity

Followed for: 1) Overall Mortality 2) PC Mortality

- ↓ all-cause mortality
  - Walking ≥ 90 min/week at a normal or brisk pace (↓ 46%)
  - ≥ 3 hrs/week of vigorous activity (↓ 49%)
- ↓ prostate cancer-specific mortality
  - ≥ 3 hrs/week of vigorous activity (↓ 61%)

Kenfield et al, J Clin Oncol, 2011
Geriatric Assessment in Decision-Making Process in Elderly Patients with Cancer

- ELCAPA study
- 375 elderly patients with cancer
- Assessment by geriatrician with CGA
- Multidisciplinary team meeting to decide treatment

Objective: Identify CGA factors independently associated with changes in cancer treatment (i.e. dose intensity, dose modification, or dose delay > 2 wks)

Caillet et al, J Clin Oncol, 2011
GA Influences Oncology Treatment Decisions

- Factors Independently Associated with Change in Tx Plan:

<table>
<thead>
<tr>
<th>CGA Measure</th>
<th>Odds Ratio (95% CI)</th>
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<tbody>
<tr>
<td>Functional Impairment (ADL score)</td>
<td>1.25 (1.04-1.49)</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>2.99 (1.36-6.58)</td>
</tr>
<tr>
<td>Depression*</td>
<td>1.84 (0.89-3.80)</td>
</tr>
<tr>
<td>High No. of Comorbidities*</td>
<td>1.09 (0.98-1.23)</td>
</tr>
</tbody>
</table>

*Nonsignificant trend towards an association

- 21% (78/375) had treatment modification
  - Majority (81%) ↓ cancer tx intensity
    - 85% of this group switched to supportive care

*Caillet et al, J Clin Oncol, 2011*
Thank you!
Geriatric Oncology: Cancer in Senior Adults

11th Meeting of the International Society of Geriatric Oncology
November 3–5, 2011
Paris, France

Meeting Chair:
Etienne Brain, Saint-Cloud, France

Scientific Committee Chair:
Stuart M. Lichtman, New York, USA

For more information, please visit: www.siog.org